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IOWA CONSERVATIONIST

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Bullheads, Democrats Of Fishdom

Almost before the ice was out of the lakes and streams, "the early birds were out with the worm", and many have already had good bullhead fishing. Except in artificial lakes there is no closed season on the three species of bullheads native to Iowa, although Mother Nature herself closes it by making these fish inactive during most of the winter. It is often said that the bullhead "pays the freight" in the state, meaning that a large part of the fishing licenses sold annually are sold to bullhead fishermen.

Bullheads are found in almost every pond and lake and in many of Iowa's streams. Usually this fish does not exceed a foot in length and one pound in weight. Examples have been taken, however, several inches longer and weighing four pounds or more.

A burlesque description of the habits of the bullhead was written many years ago by George W. Peck, and the following excerpts will bring nostalgic memories to most fishermen:

"There is a species of fish that never looks at the clothes of the man who throws in the bait, a fish that accepts any offering, and when it once takes the hook, never tries to shake a friend but submits to the inevitable, crosses its legs and says, 'Now I lay me' and comes out on the bank. It is the fish that the state should adopt as its trademark and cultivate friendly relations with.

"There is no fish that does more thinking or has a better head for grasping great questions or great chunks of bait than the bullhead.

"It is an interesting study to watch a boy catch a bullhead. The boy knows where they congre-

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Iowa Parks Provide Relaxation From Strain of War Effort

Look Out, Here Come the Nature Lovers

By Ding Darling



Free Running Bird Dogs Damage Game Bird Crop

Many species of birds are already nesting, and soon the nesting season will be in full swing. One of the serious game management problems is how to increase

the percentage of successful nests. Recent findings by the Iowa Co-operative Research Unit has revealed the fact that hunting dogs have an important bearing on the number of pheasant nests that are successful.

Hunting dogs that are allowed to run loose are very active during the nesting season. Many of

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Lesson England Has Learned Points Way for Us

By FRED T. SCHWOB

Director, State Conservation Commission

The wise and proper use of the natural resources (conservation) is more important now than ever before. This applies to all resources—soil, water, and all they produce and sustain.

The importance of the conservation of soil and water is brought most forcibly to our attention now, when we must depend upon these elements to produce the food, clothing, and materials necessary to help win the war. Without these resources we could not win.

Most vital of all to our war program are strong, healthy men and women for soldiers and workers. By keeping our people healthy, with high morale, we will provide efficient soldiers and workers, thereby assuring efficiency and performance. Rest, relaxation and recreation are essential to the health and well-being of people engaged in an all-out war effort. This was learned early in the war by England, Germany and Canada. They found that their workers, as well as their soldiers, needed diversion to maintain high efficiency and morale.

Because of the all-out war effort, which has made necessary the tire conservation program, the Conservation Commission anticipates a far greater number of Iowans than usual will spend their leisure time and vacations in the state this year.

The State Conservation Commission has been working since

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Bullheads

(Continued from Page One)

gate, and when he throws in his hook it is dollars to buttons that in the near future he will get a bite.

"The bullhead is democratic in all of its instincts. Even if the boy's shirt is sleeveless, his hat crownless, and his pantaloons a bottomless pit, the bullhead will bite just the same.

"The bullhead seems to be dozing on the muddy bottom—but wait! There is a movement of his 'continuation' and his 'cow-catcher' moves toward the bait. He does not wait to smell its freshness. That makes no difference to him. He argues, 'Here is a family out of meat. My country calls, and I must go.' He opens his mouth and the bait disappears. He realizes his days are numbered and argues that if he swallows the bait and digests it before the boy pulls him out, he will be just so much ahead.

"Finally the boy thinks of the bait and pulls it out, and the bullhead is landed on the bank. Some fish take the bait gingerly

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Thunderheads, Buds, Mean Spring



(Photo by Don L. Berry)
Swelling buds and thunderheads above Pammel State Park.

State Parks

(Continued from Page One)

1932 on a definite, long-time program to provide clean, natural places out-of-doors where people can play, rest and relax. At present the people in Iowa have 79 state parks and reserves well distributed over the state. They range in size from small areas of a few acres to tracts of more than 1,500 acres.

These 79 areas have been developed, and are provided with roads, water, and sanitary facilities. Many have fine shelter houses. Seven have groups of over-night cabins located in natural scenic surroundings on beautiful lakes. Picnic tables, fireplaces, and other facilities

necessary for use by the people are provided.

No other phase of the Iowa conservation program is so generally popular as the park and preserve program. Over three and one-half million people utilized these areas during 1941. The Commission is providing additional facilities, such as picnic tables, fireplaces, and parking areas, to accommodate the anticipated increased use during 1942.

In addition to these park and preserve areas, Iowa has 65 natural lakes, 18 artificial lakes, and 15,000 miles of rivers and streams that provide many forms of outdoor recreation.

The prospects for fishing are very good for 1942. The lakes and streams have had good water stages, no winter kill from suffocation, improved conditions because of the elimination of pollution, and good populations of game fish from previous stocking and migration from the Mississippi and Missouri Rivers, all of which should assure good fishing.

For the hunter, exceptionally large seed stocks of pheasants and quail this spring should produce a record crop for 1942.

The Conservation Commission has established 82 public shooting grounds, and more are being acquired to provide additional places in which the duck, pheasant, and quail hunter may enjoy these fine sports.

The State Conservation Commission urges Iowans to utilize and enjoy these state parks and preserves, the fishing and hunting and other outdoor recreational facilities that have been provided. A letter or postcard addressed to "Director, State Conservation Commission, 10th and Mulberry Streets, Des Moines, Iowa," will bring prompt information on how and where to spend your "play time" in Iowa's outdoors.



By FLOYD H. DAVIS

U. S. Game Mgt. Agent

The migration of birds is thought of by most people as the north and south movement coinciding with spring and fall seasons.



"Flick"

The subject is much more complicated than this. Banding records show that many birds return year after year to the same areas to nest. They also return to the same wintering grounds. Birds have been known to use

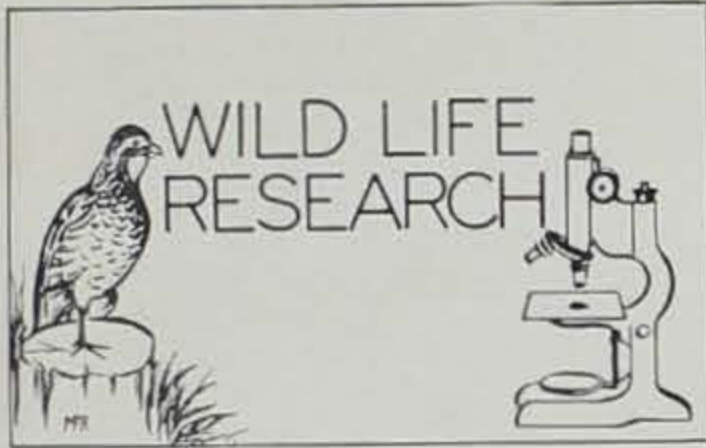
the same nest boxes year after year. Ducks have been trapped in Louisiana and shipped to various points on both coasts and released. Records show most of these birds were either subsequently shot in the Mississippi Valley or re-trapped at the original banding station in Louisiana. This indicates the remarkable accuracy of the bird's sense of orientation. From such banding the flyway systems have been determined.

Each flyway is a definite geographic region. It has both wintering and breeding grounds and a system of migration stop-overs. There are four major flyways in the United States—the Atlantic, Mississippi, Central, and Pacific. With the exception of the coasts, flyway boundaries are not sharply defined, and on the wintering and breeding grounds there is, no doubt, some over-lapping.

The flyway in which most Iowans should be intensely interested is the Mississippi flyway. Dr. Frederick C. Lincoln, of the Fish and Wildlife Service, states that in point of numbers, the waterfowl population of the Mississippi flyway exceeds all others. This is due to the immense numbers of mallards and pintails in the area. These species greatly outnumber all other North American ducks and geese.

The Mississippi flyway may be pictured as a large funnel, with its mouth extending across the Arctic regions from Alaska to Baffin Island, and the tube occupying the lower Mississippi Valley south of Missouri. Practically all the ducks and geese in this flyway winter in the United States in the lower Mississippi Valley and on the Gulf Coast from Mobile Bay to Galveston, Texas.





Food of the Channel Catfish

By HARRY HARRISON

The recognition of the factor or factors which limit the total production is deemed essential to proper management of this or any other species of fish. If these factors are considered under the three essentials, food, shelter, and reproduction, it becomes evident that an insufficiency of any one will result in a low yield. This problem deals with one of these essentials for the channel catfish.

This portion of the studies of foods of the channel catfish is based on 388 specimens taken from the Des Moines River, Boone County, Iowa, from April to August, 1941. The fish were measured and separated into size groups in the laboratory. Stomachs were then removed and examinations of their contents made. In order to secure a comparison of the foods taken by the fish with availability of the food organisms, examination of the microscopic bottom fauna was made at regular intervals.

Insects constitute the chief food of all size groups of the catfish. True flies (Diptera), caddice flies (Trichoptera), and mayflies (Ephemeroptera), were the principle insects taken; all were common in the bottom fauna. Beetles (Coleoptera) and true bugs (Hemiptera) were taken frequently. Although stone-flies (Plecoptera) were not uncommon in the bottom fauna, they constitute a negligible portion of the catfish food, a situation presumably due to the relative unavailability of the stoneflies to the catfish because of their secretive habits (living under stones and buried in the bottom).

Fishes, chiefly minnows and suckers, are of importance as food to the larger individuals. One stomach contained three small channel catfish, the only evidence of cannibalism or predation upon game fish. Fish remains found in several stomachs included scales of fish too large to have been eaten by the catfish, the only evidence of scavenging noted in the 388 stomachs examined.

Crayfish are very rare in the river and were represented in only four stomachs; but it is well known that where these animals are common they are important as food. Plant materials were found in nearly half of the stomachs of fish older than one year.

Elm seeds were of particular importance during the spring months; the stomach of a catfish

Wild Flowers Reminder of Our Heritage

By ARTHUR E. RAPP

No one knows exactly what the lands and the waters, the prairies and woodlands of Iowa were like when the Indians or the occasional trappers and hunters roamed over its broad expanse. Only to a slight degree do the narrators of the early pioneers describe the picture that pleased the eyes of those who came to these parts in the early days of the past century. It is when we see the vast fields of flowers that occasionally still prevail in the regions to the west of us where a changing land usage has not as yet destroyed the natural vegetation, that we realize that at least to some extent Iowa must have been a land of flowers before we made it a land of fields and pastures.

We do know, however, that Iowa was predominantly a prairie state where grasslands prevailed, and that only in stream valleys, on occasional oak knolls, or wooded areas could timber be found. We also think it is logical to assume that these wooded areas expanded as prairie fires became less frequent. We know that there were wet areas covered with vegetation that could only maintain itself as long as the areas remained wet, and we know that as meadows were mowed in late summer, certain seed crops were destroyed, so that many of the native plants that once prevailed were soon lost. We know that plowing a field could in a single year, and that close grazing could in a few years, completely destroy a stand of native plants that only years could develop.

Today, as we walk along a neglected fence row undisturbed for years, or along a railroad right of way, or over a bit of land that because of its nature, its inaccessibility, or its clouded ownership, has remained unchanged, we see an occasional specimen, a small colony, or a few of some of the wild flowers that, because of their resistance or their adapti-

13 inches long contained over 1,400 of these seeds. The volume of plant material found in stomachs after the fruiting season of the elm was small, hence, plants should not be considered as an important summer food of the catfish.

In general, the foods taken by the channel catfish are in proportion to availability, but forage fishes are not taken in great numbers despite an apparently ample available supply.

Trillium--First Flower of Spring



Trillium, our earliest blooming woodland flower.

bility, were able to maintain themselves over a long period of years.

Traditionally we love the woodland flowers, the trilliums, the hepaticas, the anemones, and the woodland phlox. They were the flowers our grandmothers knew and our mothers remembered. But only to a limited extent are they the wild flowers of Iowa, for Iowa is a prairie state whose wild flowers must be able to stand strong winds and hot suns, with occasional dry spells, together with the overpowering competition of stronger growing grasses and weeds that thrive in fertile soil.

Most of Iowa's prairie flowers have strong tap roots, or they may be crow-footed, or else they may possess thick mats of underground stems that increase the area they dominate. They are apt to have strong colors, brilliant orange and bright yellows, together with dark blues and purples, or else an occasional red. Most of them are perennials, a few biennials and almost no annuals, but all of them grow in Iowa because they have certain characteristics that are suited to the conditions that prevail in Iowa.

While Iowa is predominantly a prairie state, it does have some woodlands, and in those woodlands there are to be found, as might be expected, wild flowers. These woodland wild flowers are the hardier and more thrifty ones of those found all the way to the New England states east of a line drawn roughly from Minnesota to Georgia. This is an area in which the air is more humid, the sunshine less intense, and where the winds do not blow quite so hard.

Our most common wild flowers of the woods are hepaticas, the trilliums, and the wood anemones, which can generally be found in the woodlands covering the hills that border the stream valleys

lying east and including the Des Moines River and its tributaries. Only occasionally have these wild flowers been reported as growing west of this line. There are, of course, woodland flowers to the west, especially amongst the bluffs of the Missouri River, but these are more apt to be dutchman's breeches, timber phlox and honeysuckles.

In addition to the hepaticas, trilliums, and anemones found in the more eastern part of the state, a wide range of other woodland flowers can be found, especially in State Park areas, but not in such great prevalence as those first named. At Pammel Park great quantities of Spring Beauties and Jacob's Ladder bloom each spring, while at Eldora the Dogtooth Violet seems to predominate. At Fort Defiance, near Estherville, a very wide range of woodland flowers exists in great quantities, while in Wild Cat Den, near Muscatine, a smaller but more attractive display of wild flowers may be seen.

The little snow trillium might be considered the first of our woodland flowers, and it can often be found as early as the third week in March, being quite indifferent to snow and cold winds after the winter's frost is once out of the ground. It is very persistent, being one of the last to disappear from an area in which it has become established. Its growth, however, is very slow, and only through the lapse of years does it definitely establish itself in quantities. While most wild flowers prefer sloping ground, the snow trillium seems to be indifferent to what is above it as long as it is permitted to complete its yearly growth cycle without disturbance.

Hepaticas like the hillsides, preferably a slope to the north and east. Open woods with not too much shade are to its liking,

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Flowering Dutchman--an Iowa Favorite



(Photo by Ada Hayden)

Dutchman's breeches, a spring flower of wide distribution.

Wild Flowers

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and it is less apt to be found at the more brushy edges of woodlands than in the deeper woods, where the treetops deflect the March and April winds so that the hillsides are clean-swept of leaves. On such days hepaticas are seen at their best.

There are still a great many woodland wild flowers to be seen in Iowa, particularly in our park lands. In the southeastern portion of our state there never has been as complete or intense a change in the usage of land as in the west or the north, and it is in those parts of the state where the seed stock has never been entirely destroyed that the widest range of wild flowers can be found.

It is in the northeastern part of the state that woodland wild flowers can be most frequently found, for here there are more areas suited to the needs of these wild flowers and more areas not given to cultivation; but it is in the broad valley of the Des Moines and its tributaries that the most accessible wild flower areas exist. It is hoped that in time, with a growing appreciation of the gifts of nature, greater efforts will be made toward their preservation.

Bullheads

(Continued from Page Two)

and are caught around the selvage of the mouth. Not so the bullhead. 'If bait is a good thing, you can't have too much of it, and it tastes good all the way down.' The boy gets on his knees to dissect the bullhead and get his hook back. We have seen a boy take a dull knife and follow a fish line down a bullhead from the head to the end of his subsequent



(Photo by Ada Hayden)

Hepaticas, delicate early-blooming flower of the woods.

anatomy, and all the time there would be an expression of sweet peace on the countenance of the bullhead as though he enjoyed it.

"There is one drawback to the bullhead, however, and that is his horns. We doubt if a boy ever descended into the patent insides of a bullhead to mine for hooks that he did not, before his work was done, run a horn into his vital parts. We have seen a bullhead lie on the bank and become dry and, to all appearances, dead to all that was going on, and when a boy sat down on him and got a horn in his elbow and yelled, 'Murder!', the bullhead would grin from ear to ear and wag his tail as though applauding for an encore."

Iowa's 65 meandered lakes contain more than 41,000 acres.

An Open letter

To All Conservation officers, Fish & Game Div.
In Re Pheasant Damage Complaints
Gentlemen:

The season is now approaching when we may expect to receive complaints from farmers concerning pheasant damage to corn. For the benefit of the Conservation Officers who are comparatively new on the job and may not have experienced complaints of this nature, I trust this letter may be helpful.

It has been our experience that many times pheasants are blamed for damaging newly planted or sprouted corn simply because pheasants had been seen in the cornfield whereas investigation had clearly shown that the damage had been done by gray ground squirrels, striped ground squirrels, field mice, cutworms, or wireworms, and not by pheasants. Obviously the first step to be taken when you receive a complaint of pheasant damage is to investigate the complaint and determine exactly what is causing the damage.

Pheasants do at times damage newly planted corn, but in almost every instance it has been found that this damage occurs in worm-infested ground, and in these instances worms are what the pheasant is after. When a pheasant pulls or scratches out the corn when digging worms, the kernel is seldom eaten.

We have found that a great many complaints of damage can be remedied by suggesting to the farmer that he scatter shelled corn around the edges of his newly planted fields. This tends to keep both the rodents and the pheasants out of the fields. I believe that most of the Conservation Officers who are likely to receive complaints of pheasant damage have a supply of AAA corn samples on hand that can be used for the above purpose in case the farmer does not have shelled corn available. Conservation Officers have followed this plan for several years with very good success.

There is a commercial product on the market that was recently brought to my attention which the manufacturers claim will keep pheasants from molesting corn during the germinating and sprouting stages. It is also claimed that it will stop damage from crows and rodents. This product is known as CRO-TEX and it is manufactured by the Bonide Chemical Company, Inc., Utica, New York. This firm states that the Ohio Conservation Department has used Bonide Cro-Tex for the past five years with good success. We, of course, are not advertising this product, as there may be others equally good which we know nothing about.

In the event that you receive any serious complaints and the above suggestions fail to produce the desired results, you should advise this office. Trusting that the above information will be of some value to you, I am

Very truly yours,

TAYLOR W. HUSTON, Supt. of Game

Get Acquainted with Your Conservation Officer

Visitors to the various state recreational areas will find their outing more enjoyable if they contact the Commission representative stationed in the park. Most of the state's recreational reserves are maintained in a particular location because of some historical, geological, archaeological, or other feature that makes them unique. The conservation officer stationed in the area is charged with knowing and being able to acquaint his visitors with the facts that make these areas unusual. The conservation officer will endeavor to make your visit to his particular park as enjoyable as possible. Get in touch with him and have him help you solve your vacation problems.

State Conservation Officers

Ahquabi Park, Warren County—D. V. Hicks, Indianola.
Backbone Park, Delaware County—W. A. Abbott, Lamont.
Beeds Lake, Franklin County—E. A. Saxton, Hampton.
Bellevue Park, Jackson County—To be filled.
Bixby Park, Clayton County—W. A. Abbott, Lamont.
Black Hawk Park, Sac County—L. D. Wright, Lake View.
Brush Creek Canyon Park, Fayette—W. A. Abbott, Lamont.
Call, Ambrose A., Park, Kossuth County—Paul R. Wille, Algona.
Clear Lake, Cerro Gordo County—J. Z. Stevens, Clear Lake.
Dolliver Memorial Park, Webster County—H. G. Lathrop, Lehigh.
Farmington Park—Van Buren County—Geo. B. Coon, Farmington.
Fort Defiance Park, Emmet County—E. G. Harrison, Estherville.
Geode Park, Henry-Des Moines Counties—R. E. Sloan, New London.
Gull Point and Okoboji Areas, Dickinson County—O. L. Fulton, Milford.
Heery Woods Park, Butler County—C. W. Keairnes, Clarksville.

Keomah Park, Mahaska County—W. B. Bayless, Oskaloosa.
Lacey Keosauqua Park, Van Buren County—Harry J. Schlotfeldt, Keosauqua.
Ledges Park, Boone County—F. E. Morley, Boone.
Lepley Park, Hardin County—W. E. Chastain, Eldora.
Lost Island Park, Palo Alto County—R. L. Hynes, Ruthven.
Macbride Park, Johnson County—L. F. Reed.
Maquoketa Caves, Jackson County—Harold Morgan, Maquoketa.
McGregor Areas, Clayton County—Milo J. Peterson, McGregor.
Mini-Wakan Park, Dickinson County—O. L. Fulton, Milford.
Oakland Mills Park, Henry County—F. C. Cory, Mount Pleasant.
Palisades Kepler Park, Linn County—C. F. Meyer, Mount Vernon.
Pammel Park, Madison County—W. E. Myers, Winterset.
Pilot Knob Park, Hancock County—O. G. Thompson, Forest City.
Pine Lake, Hardin County—W. R. Chastain, Eldora.
Red Haw Hill Park, Lucas County—L. A. Strohman, Chariton.
Silver Lake Park, Delaware County—W. A. Abbott, Lamont.
Springbrook Park, Guthrie County—W. K. Garrard, Guthrie Center.
Stone Park, Woodbury County—E. W. Cutler, R. R. 3, Sioux City.
Three Fires Park, Taylor County—E. V. Sullivan, Bedford.
Trappers Bay Park, Dickinson County—O. L. Fulton, Milford.
Twin Lakes, Calhoun County—Mathew Roche, Manson.
Walnut Woods Park, Polk County—W. A. Tallan, Commerce.
Wapello Park, Davis County—J. A. Babcock, Drakesville.
Wapsipinicon Park, Jones County—J. E. Rhody, Anamosa.

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Waubonsie Park, Fremont County—M. L. Jones, Hamburg.

Wild Cat Den Park, Muscatine County—E. O. Richman, Muscatine.

Park Custodians

Echo Valley Park, Fayette County—E. R. Ballard, West Union.

Lewis & Clark Park, Monona—Harve Taylor, Onawa.

Mill Creek Park, O'Brien County—Henry Imwiehe, Paullina.

Oak Grove Park, Sioux County—Raymond Hughes, Hawarden.

Preparation Canyon Park, Monona County—Leonard Hedum, Moorhead.

Rice Lake, Winnebago-Worth counties—H. L. Hill, Lake Mills.

Sharon Bluffs Park, Appanoose County—Lowell Houser, Moulton.

Swan Lake, Carroll County—Ben Hulsing, Carroll.

Wanata Park, Clay-Buena Vista Counties—Irwin Busby, Peterson.

Caretakers

Beaver Meadows Park, Butler County—R. S. Sherwood, Parkersburg.

Clarke, Theo. F. Park, Tama County—Anton Kremenak, Traer.

Eagle Lake, Hancock County—George Lloyd, Britt.

Gitchie Manitou Park, Lyon County—A. J. Bruggeman, Larchwood.

Josh Higgins Park, Black Hawk County—E. H. Parmen, Cedar Falls.

Okamanpedan Park, Emmett County—Carl Griesse, Dolliver.

Rush Lake, Palo Alto County—W. H. Fox, R. R. 1, Curlew.

Miscellaneous

Cold Spring Park, Cass County—Under supervision of Town of Lewis.

Fort Atkinson, Winneshiek County—Under construction.

Manawa Park, Pottawattamie County—Open for limited use.

Medium Lake, Palo Alto County—Under construction.

Nine Eagles Park, Decatur County—Under construction.

Storm Lake, Buena Vista County—Under construction.

Young Trees Just a Meal To a Rabbit

By W. A. RUSH, Plantsman

Much damage by rabbits to plantings made in the northern half of the state has been noted in the past few weeks. Because of the comparative scarcity of rabbits in the southern half of the state this year, very little damage has been noted there.

It apparently is not the lack of food, but the lack of some particular element in the diet that causes rabbits to feed on the bark of young trees during late January, through February and the early part of March. Corn and other grain placed experimentally among trees where rabbits frequented, was left untouched, and the trees in the area were badly damaged.

Nursery grown stock seems much preferred to those trees growing naturally in the areas.

No effective large scale control measure has been found as yet to remedy this condition.

Game management areas in Black Hawk County total 30,555 acres.

Hatchery Men Net Brood Walleyes



State hatchery men removing wall-eye brood fish from 2½-inch mesh gill net.

(Photo by S. W. Lock)

Wall-eyed Pike Culture Insures Sport for Anglers

By E. B. SPEAKER

Superintendent of Fisheries

Pike-perch, or wall-eyed pike, as they are familiarly known to our anglers, inhabit a number of lakes and streams in Iowa. They are native to both the Mississippi and Missouri River systems, and it is probable most of the lakes and inland streams originally became populated from this source.

The family Percidae is well represented in the state, particularly the sub-family of darters, but most of these are little known except to those who study fishes. The important species of the family from an angling viewpoint include the yellow perch, wall-eyed pike, and sauger pike.

In the Mississippi Valley, the wall-eyed pike occurs in lakes and the larger streams as far south as Georgia and Alabama. Its fine flavor and firm flesh rank it as one of the most important fresh water fishes on the North American continent, and it is preferred by many to salt water fishes. It is a voracious fish, feeding primarily on minnows and insects, and is known to have reached a maximum weight of 25 pounds. Specimens of this size are, of course, extremely rare, but examples from six to eight pounds are common.

Although sauger, or sand-pike, are occasionally taken in the inland waters of the state, they are confined primarily to the boundary rivers and waters closely adjacent thereto. The sauger is a much smaller fish than the wall-eye, and specimens over three or four pounds are extremely rare

even in the Mississippi River, where they occur in large numbers.

The wall-eyed and sauger pike are closely related species and resemble each other to a remarkable degree. They can easily be distinguished, however, by the following description: The color of the wall-eye is olive-grey, finely mottled with brassy sides. There is a large black blotch on the membrane of the last two or three spines of the spinous dorsal fin. The second dorsal and caudal fins are mottled olive and yellowish. There is no black blotch on the base of the pectoral fin. The color of the sauger is olive-grey with large dark mottlings on the brassy sides. There are two or three rows of round black spots on the first dorsal fin, but no blotch on the membrane of the last spines, as in the case of the wall-eye. There are three irregular rows of dark spots on the second dorsal fin. There is a large black blotch on the base of the pectoral fin.

The records in our office show wall-eyed pike have been stocked in the state since 1875. Most of the early stocking was done through the courtesy of the U. S. Bureau of Fisheries, who also furnished a part of the eggs for a number of years after the installation of the state pike hatchery at Spirit Lake about 1916.

A second pike hatchery was constructed at Clear Lake in 1921, and it has functioned continuously since. The combined output of the Spirit Lake and the Clear Lake Pike Hatcheries in the

spring of 1941 was 146,200,000 fry, the largest number ever produced in the state.

Wall-eyed pike reproduce in this latitude early in April, usually immediately after the ice goes off in the spring. Parent fishes are captured on their spawning beds in two and two and a half inch square mesh gill-nets, which are tended at frequent intervals through the night. Eggs and milt are taken from ripe fishes in a process called "stripping".

Although it is often said there are 175,000 eggs per fluid quart, our experiments at the Spirit Lake Hatchery reveal an average of about 150,000. At this station an average of from two and a half to three females are required to produce a quart of eggs. The number, of course, is dependent upon the size of the fish, and large specimens may produce over a quart of eggs.

After the eggs have been fertilized with milt from the male, they are placed under cold running water to harden. The hardening process complete, they are placed in tall glass jars of five quart capacity for incubation. From two and a half to three quarts of eggs are used in each jar. Water from gravity flow in wooden supply troughs is circulated constantly over the eggs. The incubation period is dependent upon the temperature of the water, and in our hatcheries is usually from 12 to 18 days.

The per cent of hatch will vary considerably from year to year. Last year 77 per cent of the eggs hatched at the Spirit Lake station. Normally both hatcheries produce well and are filled to their capacity each spring.

A number of small lakes and ponds have been set aside for the production of fingerling pike (five to six inches long). Obviously these areas will not support the entire output of the hatcheries, and it is necessary to stock the bulk of the fish in the fry stage.

Iowa was the first state in the nation to successfully rear large numbers of pike to fingerling and yearling sizes. The production of the rearing ponds will vary tremendously from year to year, and the yield will range from about 60,000 to over 600,000.

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Fathead minnows (*Pimephales promelas*) are used exclusively for this purpose. We have also found the larger ponds serve this

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April 15, 1942.

Flowering Dutchman--an Iowa Favorite



(Photo by Ada Hayden)

Dutchman's breeches, a spring flower of wide distribution.

Wild Flowers

(Continued from Page Three)

and it is less apt to be found at the more brushy edges of woodlands than in the deeper woods, where the treetops deflect the March and April winds so that the hillsides are clean-swept of leaves. On such days hepaticas are seen at their best.

There are still a great many woodland wild flowers to be seen in Iowa, particularly in our park lands. In the southeastern portion of our state there never has been as complete or intense a change in the usage of land as in the west or the north, and it is in those parts of the state where the seed stock has never been entirely destroyed that the widest range of wild flowers can be found.

It is in the northeastern part of the state that woodland wild flowers can be most frequently found, for here there are more areas suited to the needs of these wild flowers and more areas not given to cultivation; but it is in the broad valley of the Des Moines and its tributaries that the most accessible wild flower areas exist. It is hoped that in time, with a growing appreciation of the gifts of nature, greater efforts will be made toward their preservation.

Bullheads

(Continued from Page Two)

and are caught around the selvage of the mouth. Not so the bullhead. 'If bait is a good thing, you can't have too much of it, and it tastes good all the way down.' The boy gets on his knees to dissect the bullhead and get his hook back. We have seen a boy take a dull knife and follow a fish line down a bullhead from the head to the end of his subsequent



(Photo by Ada Hayden)

Hepaticas, delicate early-blooming flower of the woods.

anatomy, and all the time there would be an expression of sweet peace on the countenance of the bullhead as though he enjoyed it.

"There is one drawback to the bullhead, however, and that is his horns. We doubt if a boy ever descended into the patent insides of a bullhead to mine for hooks that he did not, before his work was done, run a horn into his vital parts. We have seen a bullhead lie on the bank and become dry and, to all appearances, dead to all that was going on, and when a boy sat down on him and got a horn in his elbow and yelled, 'Murder!', the bullhead would grin from ear to ear and wag his tail as though applauding for an encore."

Iowa's 65 meandered lakes contain more than 41,000 acres.

An Open letter

To All Conservation officers, Fish & Game Div.
In Re Pheasant Damage Complaints
Gentlemen:

The season is now approaching when we may expect to receive complaints from farmers concerning pheasant damage to corn. For the benefit of the Conservation Officers who are comparatively new on the job and may not have experienced complaints of this nature, I trust this letter may be helpful.

It has been our experience that many times pheasants are blamed for damaging newly planted or sprouted corn simply because pheasants had been seen in the cornfield whereas investigation had clearly shown that the damage had been done by gray ground squirrels, striped ground squirrels, field mice, cutworms, or wireworms, and not by pheasants. Obviously the first step to be taken when you receive a complaint of pheasant damage is to investigate the complaint and determine exactly what is causing the damage.

Pheasants do at times damage newly planted corn, but in almost every instance it has been found that this damage occurs in worm-infested ground, and in these instances worms are what the pheasant is after. When a pheasant pulls or scratches out the corn when digging worms, the kernel is seldom eaten.

We have found that a great many complaints of damage can be remedied by suggesting to the farmer that he scatter shelled corn around the edges of his newly planted fields. This tends to keep both the rodents and the pheasants out of the fields. I believe that most of the Conservation Officers who are likely to receive complaints of pheasant damage have a supply of AAA corn samples on hand that can be used for the above purpose in case the farmer does not have shelled corn available. Conservation Officers have followed this plan for several years with very good success.

There is a commercial product on the market that was recently brought to my attention which the manufacturers claim will keep pheasants from molesting corn during the germinating and sprouting stages. It is also claimed that it will stop damage from crows and rodents. This product is known as CRO-TEX and it is manufactured by the Bonide Chemical Company, Inc., Utica, New York. This firm states that the Ohio Conservation Department has used Bonide Cro-Tex for the past five years with good success. We, of course, are not advertising this product, as there may be others equally good which we know nothing about.

In the event that you receive any serious complaints and the above suggestions fail to produce the desired results, you should advise this office. Trusting that the above information will be of some value to you, I am

Very truly yours,

TAYLOR W. HUSTON, Supt. of Game

Get Acquainted with Your Conservation Officer

Visitors to the various state recreational areas will find their outing more enjoyable if they contact the Commission representative stationed in the park. Most of the state's recreational reserves are maintained in a particular location because of some historical, geological, archaeological, or other feature that makes them unique. The conservation officer stationed in the area is charged with knowing and being able to acquaint his visitors with the facts that make these areas unusual. The conservation officer will endeavor to make your visit to his particular park as enjoyable as possible. Get in touch with him and have him help you solve your vacation problems.

State Conservation Officers

Ahquabi Park, Warren County—D. V. Hicks, Indianola.
Backbone Park, Delaware County—W. A. Abbott, Lamont.
Beeds Lake, Franklin County—E. A. Saxton, Hampton.
Bellevue Park, Jackson County—To be filled.
Bixby Park, Clayton County—W. A. Abbott, Lamont.
Black Hawk Park, Sac County—L. D. Wright, Lake View.
Brush Creek Canyon Park, Fayette—W. A. Abbott, Lamont.
Call, Ambrose A., Park, Kossuth County—Paul R. Wille, Algona.
Clear Lake, Cerro Gordo County—J. Z. Stevens, Clear Lake.
Dolliver Memorial Park, Webster County—H. G. Lathrop, Lehigh.
Farmington Park—Van Buren County—Geo. B. Coon, Farmington.
Fort Defiance Park, Emmet County—E. G. Harrison, Estherville.
Geode Park, Henry-Des Moines Counties—R. E. Sloan, New London.
Gull Point and Okoboji Areas, Dickinson County—O. L. Fulton, Milford.
Heery Woods Park, Butler County—C. W. Keairnes, Clarksville.

Keomah Park, Mahaska County—W. B. Bayless, Oskaloosa.
Lacey Keosauqua Park, Van Buren County—Harry J. Schlotfeldt, Keosauqua.
Ledges Park, Boone County—F. E. Morley, Boone.
Lepley Park, Hardin County—W. E. Chastain, Eldora.
Lost Island Park, Palo Alto County—R. L. Hynes, Ruthven.
Macbride Park, Johnson County—L. F. Reed.
Maquoketa Caves, Jackson County—Harold Morgan, Maquoketa.
McGregor Areas, Clayton County—Milo J. Peterson, McGregor.
Mini-Wakan Park, Dickinson County—O. L. Fulton, Milford.
Oakland Mills Park, Henry County—F. C. Cory, Mount Pleasant.
Palisades Kepler Park, Linn County—C. F. Meyer, Mount Vernon.
Pammel Park, Madison County—W. E. Myers, Winterset.
Pilot Knob Park, Hancock County—O. G. Thompson, Forest City.
Pine Lake, Hardin County—W. R. Chastain, Eldora.
Red Haw Hill Park, Lucas County—L. A. Strohm, Chariton.
Silver Lake Park, Delaware County—W. A. Abbott, Lamont.
Springbrook Park, Guthrie County—W. K. Garrard, Guthrie Center.
Stone Park, Woodbury County—E. W. Cutler, R. R. 3, Sioux City.
Three Fires Park, Taylor County—E. V. Sullivan, Bedford.
Trappers Bay Park, Dickinson County—O. L. Fulton, Milford.
Twin Lakes, Calhoun County—Mathew Roche, Manson.
Walnut Woods Park, Polk County—W. A. Tallan, Commerce.
Wapello Park, Davis County—J. A. Babcock, Drakesville.
Wapsipinicon Park, Jones County—J. E. Rhody, Anamosa.

(Continued to Page 5, Column 1)

Waubonsie Park, Fremont County—M. L. Jones, Hamburg.

Wild Cat Den Park, Muscatine County—E. O. Richman, Muscatine.

Park Custodians

Echo Valley Park, Fayette County—E. R. Ballard, West Union.

Lewis & Clark Park, Monona—Harve Taylor, Onawa.

Mill Creek Park, O'Brien County—Henry Imwiehe, Paullina.

Oak Grove Park, Sioux County—Raymond Hughes, Hawarden.

Preparation Canyon Park, Monona County—Leonard Hedum, Moorhead.

Rice Lake, Winnebago-Worth counties—H. L. Hill, Lake Mills.

Sharon Bluffs Park, Appanoose County—Lowell Houser, Moulton.

Swan Lake, Carroll County—Ben Hulsing, Carroll.

Wanata Park, Clay-Buena Vista Counties—Irwin Busby, Peterson.

Caretakers

Beaver Meadows Park, Butler County—R. S. Sherwood, Parkersburg.

Clarke, Theo. F. Park, Tama County—Anton Kremenak, Traer.

Eagle Lake, Hancock County—George Lloyd, Britt.

Gitchie Manitou Park, Lyon County—A. J. Bruggeman, Larchwood.

Josh Higgins Park, Black Hawk County—E. H. Parmen, Cedar Falls.

Okamanpedan Park, Emmett County—Carl Griesse, Dolliver.

Rush Lake, Palo Alto County—W. H. Fox, R. R. 1, Curlew.

Miscellaneous

Cold Spring Park, Cass County—Under supervision of Town of Lewis.

Fort Atkinson, Winneshiek County—Under construction.

Manawa Park, Pottawattamie County—Open for limited use.

Medium Lake, Palo Alto County—Under construction.

Nine Eagles Park, Decatur County—Under construction.

Storm Lake, Buena Vista County—Under construction.

Young Trees Just a Meal To a Rabbit

By W. A. RUSH, Plantsman

Much damage by rabbits to plantings made in the northern half of the state has been noted in the past few weeks. Because of the comparative scarcity of rabbits in the southern half of the state this year, very little damage has been noted there.

It apparently is not the lack of food, but the lack of some particular element in the diet that causes rabbits to feed on the bark of young trees during late January, through February and the early part of March. Corn and other grain placed experimentally among trees where rabbits frequented, was left untouched, and the trees in the area were badly damaged.

Nursery grown stock seems much preferred to those trees growing naturally in the areas.

No effective large scale control measure has been found as yet to remedy this condition.

Game management areas in Black Hawk County total 30,555 acres.

Hatchery Men Net Brood Walleyes



State hatchery men removing wall-eye brood fish from 2½-inch mesh gill net.

(Photo by S. W. Lock)

Wall-eyed Pike Culture Insures Sport for Anglers

By E. B. SPEAKER

Superintendent of Fisheries

Pike-perch, or wall-eyed pike, as they are familiarly known to our anglers, inhabit a number of lakes and streams in Iowa. They are native to both the Mississippi and Missouri River systems, and it is probable most of the lakes and inland streams originally became populated from this source.

The family Percidae is well represented in the state, particularly the sub-family of darters, but most of these are little known except to those who study fishes. The important species of the family from an angling viewpoint include the yellow perch, wall-eyed pike, and sauger pike.

In the Mississippi Valley, the wall-eyed pike occurs in lakes and the larger streams as far south as Georgia and Alabama. Its fine flavor and firm flesh rank it as one of the most important fresh water fishes on the North American continent, and it is preferred by many to salt water fishes. It is a voracious fish, feeding primarily on minnows and insects, and is known to have reached a maximum weight of 25 pounds. Specimens of this size are, of course, extremely rare, but examples from six to eight pounds are common.

Although sauger, or sand-pike, are occasionally taken in the inland waters of the state, they are confined primarily to the boundary rivers and waters closely adjacent thereto. The sauger is a much smaller fish than the wall-eye, and specimens over three or four pounds are extremely rare

even in the Mississippi River, where they occur in large numbers.

The wall-eyed and sauger pike are closely related species and resemble each other to a remarkable degree. They can easily be distinguished, however, by the following description: The color of the wall-eye is olive-grey, finely mottled with brassy sides. There is a large black blotch on the membrane of the last two or three spines of the spinous dorsal fin. The second dorsal and caudal fins are mottled olive and yellowish. There is no black blotch on the base of the pectoral fin. The color of the sauger is olive-grey with large dark mottlings on the brassy sides. There are two or three rows of round black spots on the first dorsal fin, but no blotch on the membrane of the last spines, as in the case of the wall-eye. There are three irregular rows of dark spots on the second dorsal fin. There is a large black blotch on the base of the pectoral fin.

The records in our office show wall-eyed pike have been stocked in the state since 1875. Most of the early stocking was done through the courtesy of the U. S. Bureau of Fisheries, who also furnished a part of the eggs for a number of years after the installation of the state pike hatchery at Spirit Lake about 1916.

A second pike hatchery was constructed at Clear Lake in 1921, and it has functioned continuously since. The combined output of the Spirit Lake and the Clear Lake Pike Hatcheries in the

spring of 1941 was 146,200,000 fry, the largest number ever produced in the state.

Wall-eyed pike reproduce in this latitude early in April, usually immediately after the ice goes off in the spring. Parent fishes are captured on their spawning beds in two and two and a half inch square mesh gill-nets, which are tended at frequent intervals through the night. Eggs and milt are taken from ripe fishes in a process called "stripping".

Although it is often said there are 175,000 eggs per fluid quart, our experiments at the Spirit Lake Hatchery reveal an average of about 150,000. At this station an average of from two and a half to three females are required to produce a quart of eggs. The number, of course, is dependent upon the size of the fish, and large specimens may produce over a quart of eggs.

After the eggs have been fertilized with milt from the male, they are placed under cold running water to harden. The hardening process complete, they are placed in tall glass jars of five quart capacity for incubation. From two and a half to three quarts of eggs are used in each jar. Water from gravity flow in wooden supply troughs is circulated constantly over the eggs. The incubation period is dependent upon the temperature of the water, and in our hatcheries is usually from 12 to 18 days.

The per cent of hatch will vary considerably from year to year. Last year 77 per cent of the eggs hatched at the Spirit Lake station. Normally both hatcheries produce well and are filled to their capacity each spring.

A number of small lakes and ponds have been set aside for the production of fingerling pike (five to six inches long). Obviously these areas will not support the entire output of the hatcheries, and it is necessary to stock the bulk of the fish in the fry stage.

Iowa was the first state in the nation to successfully rear large numbers of pike to fingerling and yearling sizes. The production of the rearing ponds will vary tremendously from year to year, and the yield will range from about 60,000 to over 600,000.

It is difficult for anglers to conceive of the vivacious nature of young pike and the tremendous quantities of food required to bring them to fingerling size. In our experience we have found they live primarily on Crustacea and aquatic insects and their larvae until they reach a length of about three inches, at which time their diet changes from insectivorous to piscivorous, or from insects to minnows.

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Japanese Rifle An Effective Military Weapon

Don't be misled by newspaper articles that have stated in a depreciative tone that the Japanese are armed with .25 caliber rifles. These troops shoot a highly efficient and powerful gun modeled after the German Mauser. Their rifle is the 6.5 MM Ariska that shoots a 139 grain flat base spitzer bullet and develops a muzzle velocity of 2,700 feet per second.

The diameter of the bore is 256 one-thousandths of an inch, and so it could be referred to as a .25 caliber; but it should in no way be confused with such arms as the .25-20 or the .25 caliber Stevens, although the bore is about the same. To do this would be as silly as comparing our M-1 model (Garand), which shoots a .30-06 Springfield bullet, with the old .30-30 sporting caliber.—Bruce F. Stiles.

Nature a Reluctant Teacher

It is rather overwhelming to realize how many plants bloom from early spring to late fall in Wisconsin, and you will find your trips through the woods more interesting as you become curious about the different species. It is something of a game to test your knowledge of the different varieties, and eventually you will find yourself addicted to finding those rare species in out of the way places.

An old Hindu proverb mentions that one fourth of a person's education comes from books, one fourth from his associates, one fourth from his work, and one fourth from nature. Don't discount the magnitude of that last fourth because nature is a rather reluctant teacher. You have to do all the work yourself.—Wisconsin Conservation Bulletin.

Wall-Eyes

(Continued from Page 5)

requirement best, since the pike must be given sufficient range of water to insure maximum growth. The fingerlings are removed in late summer and fall for distribution to permanent waters.

Some of the most popular pike fishing lakes include Clear Lake, Spirit Lake, East and West Okoboji Lakes, Silver Lake, and Storm Lake. Pike also occur and are taken frequently in many of the larger inland streams, including the Des Moines, Cedar, Iowa, Wapsipinicon, Maquoketa, and Upper Iowa Rivers. Pike fishing on the Upper Mississippi River has been excellent, and enthusiastic anglers report almost unbelievable sport with this fish in the Father of Waters. A good crop of young pike in the principal lakes and streams last fall is encouraging and indicative of good fishing to come.

April Means Time to Renew Your License

By REE BERRY

Have you bought your new fishing license? All fishing, hunting, and trapping licenses expire on March 31 each year. The Commission stocked some 400,000 new licenses of assorted types and colors just prior to April 1. You may purchase one now at any County Recorder's office or from your local conservation officer, or from any of the 900 other license depositaries throughout the state (banks, hardware stores, sporting goods stores, boat liveries, etc.) A cellophane holder for the license and a leaflet of laws are given "for free" with each license.

Approximately 363,000 fishing, hunting, and trapping licenses were issued during the license year which ended March 31, 1942, an all-time high in the history of the Conservation Commission. The current war emergency will undoubtedly cause a drop in license sales because many who ordinarily hunt game will be hunting Japs or other Axis quarry. Fishing will probably continue on a fairly equal basis, but will be localized to a great extent as a result of tire rationing.

In addition to fishing, hunting, and trapping licenses, the Conservation Commission issues 12 kinds of miscellaneous licenses (game breeders, bait dealers, fur dealers, etc.) and six different kinds of licenses pertaining to navigation (private and commercial boats, pilots, etc.), all of which are handled directly through the Des Moines office. Application blanks for these various licenses are available at County Recorder offices and from conservation officers, as well as from the Commission office.

A number of various other permits of seasonable varieties, such as permits to hold game or fur during closed seasons, permits to ship furs outside of the state, etc., are handled directly through the Commission office.

A master file containing a duplicate of every license issued is maintained in the Des Moines office, making it possible to check on any license at any time.

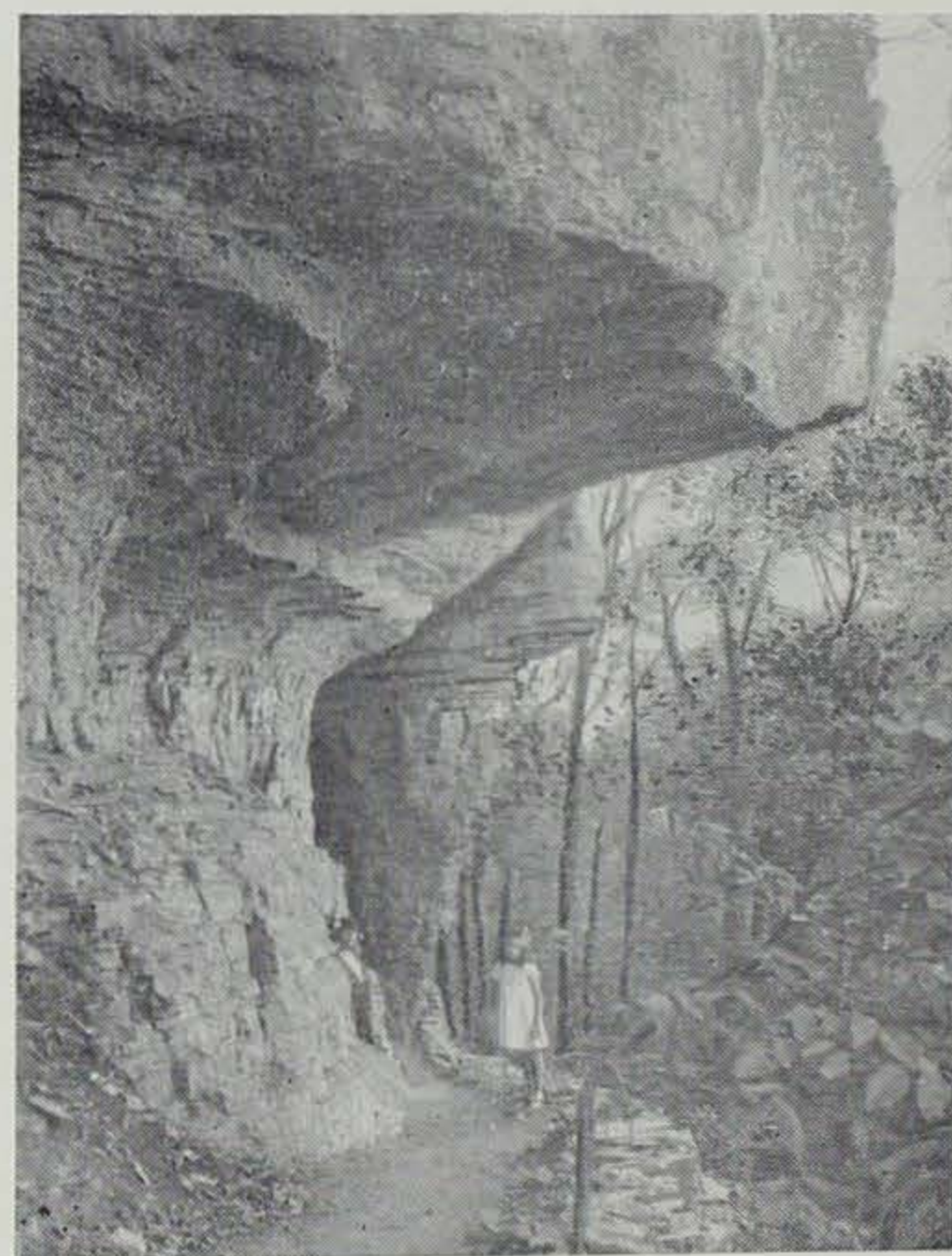
If you lose your license or if it is accidentally destroyed, a duplicate may be obtained for a fee of 25c. Duplicates of licenses issued through County Recorder offices may be obtained in the Recorder's office in the county where issued, or direct from the Conservation Commission.

Much of the food of raccoons is secured far from water, and consequently the animals do not always wash it.

Three Reasons Why Iowa's Parks Are Popular With Young and Old Alike



PICNICKING—Spring's first warm days herald the approaching picnicking season.



SCENERY—Many informal trails bisect Iowa's State Parks, such as this scenic spot.

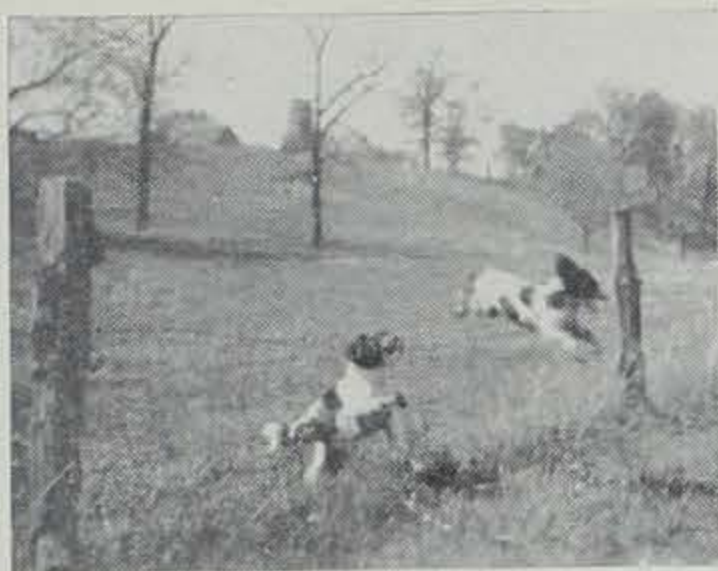


RECREATION—State parks provide the setting for 18 artificial lakes.



An interesting list of conservation activities outlined by the Keokuk High School Conservation Club appeared in the February issue of "Midland Schools." The list reflects some of the club's previous activities and also suggests ways in which a conservation club may correlate its program with biology classes and other school affairs. The following list shows that the Keokuk High School club does things and does not just talk about them:

1. Explore some interesting place such as the Green Bay region or one of the state parks.
2. Arrange for displays of conservation literature in the city and school libraries.
3. Take another Christmas Bird Count for the National Audubon Society. (Last year's census was published in BIRD LORE.)
4. Make some wire wiener holders and put them at the camp sites in Rand Park to save the trees and shrubs.
5. Continue mimeographing and distributing the booklet, SPEAKING OF CONSERVATION.
6. Take charge of an assembly program as we did last year.
7. Provide a display for the Y. M. C. A. hobby show. (Last year the club fixed a display of living snakes with informational labels about each species.)
8. Through the county Farm Bureau agent, invite Thomas S. Baskett, extension assistant in wildlife conservation, Iowa State College, to address the club and assist with our plans.
9. Send interesting nature and conservation news items to the local papers.
10. Study the fish and game laws for this area, and invite the local conservation officer for a conference on their interpretation.
11. Help with the bird-banding and mammal-tagging project of the biology department.
12. Rent a good movie on wildlife and invite the public to see it.
13. Make a small contribution to the Emergency Conservation Committee of New York, which has sent useful literature to the club.
14. Sponsor another contest in practical conservation such as our bird house contest for grade school pupils last year.
15. Build some roosting boxes for winter birds, place them in the woods, and then try to determine what kinds of birds use them.



Doggie fun, but destructive to ground-nesting game birds.

Bird Dogs

(Continued from Page One)

them run both in the day and night-time. Research has proved that if a hunting dog flushes a nesting ground bird during certain stages of incubation, the frightened bird may not return to the eggs, but will start a nest at another location, seldom laying a full clutch of eggs at the second nesting attempt. If the second nest is disturbed, the hen may try a third nesting, and the egg complement in this third nest is invariably small.

Prowling dogs are a serious problem, and the amount of both wild and domestic animals destroyed by them is enormous. Sportsmen are urged to keep and use hunting dogs because they have a definite place in the wildlife conservation picture.

Training bird dogs on game in the wild from March 15 until July 15 each year is prohibited by law for the simple reason that it is dangerous to have wildlife populations disturbed during that time. Sportsmen and other dog lovers are urged to keep all dogs confined during the nesting period.

A Fisherman's Prayer

Dear Lord, when Gabriel blows his blast

And I come home to rest at last,
Don't measure me for harp and wings,

But let me have instead these things:

Some tackle; and a rod and reel;
A pair of waders and a creel;
A gushing frothy glacial stream;
A quiet lake by which to dream;
An angel pal with whom to angle;
Magic lines that will not tangle;
And grant me leave, with fingers crossed,

To lie about the fish I lost!

—Anonymous.

FORECASTER

The groundhog may or may not have seen his shadow on Feb. 2, but Lewis Diers, of near Winterset, saw the groundhog. Diers said he had seen many groundhogs, but never before any on Feb. 2.

Members of the State Conservation Commission are appointed by the Governor with approval of two-thirds of the members of the Senate.

Diary of 1870's Reveals Game Plentiful in Iowa

Probably the most interesting Iowa game diary in existence is the "Game Book" of George E. Poyneer, of Clinton, deceased father of Fred J. Poyneer, present member of the Iowa State Conservation Commission, in which he kept a record of the game he killed in Iowa between the dates of March 31, 1874, and September 9, 1877. This diary is published in the January issue of the *Annals of Iowa*, a historical quarterly magazine published by the Iowa State Department of History and Archives, at Des Moines.

George E. Poyneer was not a market hunter, although market hunters were common in his time. He was, in fact, one of the first men in the Middle West to agitate for a closed spring season on migratory birds. He loved to hunt, and he was human. His diary, August 23, 1874, reads, "I killed four on the first rise. It was delightful. The dog acted well." This semi-spontaneous entry may well be judged the key to his whole diary.

Bird students will read in this journal an entry recording the shooting of 30 passenger pigeons on a single day. The passenger pigeon was extinct in Iowa in 1903 and extinct in the world in 1914. Ornithologists will read of 17 woodcocks killed in a single day, also 73 prairie chickens killed. They will notice wood duck, plover, ruffed grouse, swans, sandhill cranes, and other now rare birds legally and ethically hunted.

The hunter will understand "sculling", "stools", "decoys" and other terms, some obsolete, some still in use. He will see and understand: "33 birds with 35 shots"; "Birds in fine condition and laid well"; "Jack and I tied with 50 birds each—the most interesting incident of my shooting career"; "Birds scarce and very wild"; "Used No. 4's and 5 Dram P2W". The hunter will mentally go on some of the delightful excursions with George Poyneer and his pals.

Game technicians and administrators will notice the above points and many others. They will be interested in: "I got disgusted at shooting ducks from the wild work of greenhorns. There was no show at the ducks." They will note the scarcity of rabbits, with only three taken in 1874, a year when the diarist took a total of 546 separate pieces of game.

They will notice: "We killed nine birds quicker than lightning, and down came an old Granger on horseback and oh! how mad!"—"The farmers acted mean, Mr. Sonay in particular." They will



George E. Poyneer, early game diarist.

wonder at "Complaint of scarcity of prairie chickens", with a day's entry of 22 prairie chickens, two woodcocks, and five wood ducks killed. They will notice: "There was no night shooting, and I haven't seen any here."

The general reader will see in the diary early Iowa hunting as it was universally enjoyed but seldom recorded.

It is difficult to understand why men will work so hard to catch a few fish. The *Washington Journal* says that it is because catching a fair-sized fish gives the fisherman a sense of achievement something like stealing second base in a ball game or raising a hundred bushels of corn to the acre. Fishing is more than that. When you catch a fish, it proves you are even smarter than the fish, and there is comfort and satisfaction in the thought.—Blakesburg Excelsior.

Lake of Three Fires Recreational Reserve gets its name from the fact that the Chippewas, the Ottawas, and the Pottawattamies gathered here when they banded together for protection against the more savage tribes of the northwest.

Fur animals taken in the wild are estimated to yield about \$45,-000,000 worth of pelts a year, according to Fish and Wildlife Service fur reports.

The little jumping mouse can sometimes leap as much as 10 feet in one bound.

Woodpeckers are the only birds in the United States that can dig holes in solid trees.

WARDENS' ❖ TALES ❖

SHOP TALK FROM THE FIELD

Conservation Officers Yates and Stevens, while on a routine patrol a few days before the opening of the duck season, noticed a suspicious appearing automobile stopped on a country side road. The officers pulled in behind and stopped also. There were two hunters in the car, and the officers were in a conversational mood.

Yates asked, "How's hunting, boys?"

One hunter excitedly replied, "Fine, fine! Yes, yes, indeed!"

The examining officer, in a questioning vein, "And what do you have in the sack on the seat?"

"Squirrels—squirrels! We were able to get three fine squirrels!"

"And in the sack on the floor?"

The second hunter sighed resignedly. "That's the sack that sticks us!"

He was correct. Stevens' investigation revealed illegal ducks.

—WT—

Conservation Officer Paul Leaverton, of Humboldt, was checking fishing licenses on the Des Moines River. As he came around a bend, he saw a middle-aged fisherman in the act of tossing out a throw-line. Paul noticed several hooks on the line and explained that it was illegal to use more than one hook on a line in any inland water except the Skunk River north of Highway 30.

He took out his summons book and began questioning the fisherman. Among the facts brought out was that the fisherman had 16 children. Paul said, "I can see why you might need more than one hook on a line, but inasmuch as it is against the law, I believe that we had better cut all the extra hooks off."

—WT—

Quite often complaints of violations are sent to the central office in Des Moines and are then relayed to the conservation officer in the territory in which the violation took place, for investigation. A recent return on an investigation sheet gave the following illuminating information:

"Investigation shows that Mr. John Doe is owner of Car License 00. He is between 40 and 45 years old, single, and about half-baked. Mr. Doe has a reputation as an illegal fish peddler and is an expert poker player. I know him well."

—WT—

A game violator was apprehended early one morning with

Planting To Continue In Spite of War

By BILL RUSH, Plantsman

Planting has not been abandoned in the parks. It is, however, greatly curtailed because of lack of necessary labor to carry on larger planting programs. Men who formerly were available for tree planting work are now following skilled trades, working in the interests of our national defense.

The following planting projects have been started and will progress as rapidly as weather and man power permit:

At Beeds Lake, near Hampton, about 400 white pine trees ranging in size from three to five feet have been planted. At Pine Lake, near Eldora, a similar planting was completed, using the same size white pine trees. The work on this area is being done by N. Y. A. boys. The material for both projects is from the State Forest Nursery at Ames.

At Lake Keomah, near Oskaloosa, 800 red cedar trees have been planted by the N. Y. A. boys. These trees range in size from two to three feet. If weather permits, several hundred more trees will be planted.

At Lake Ahquabi, near Indianola, a project is under way to plant 3,000 red cedar trees from two to three feet high.

Material for the Lake Keomah and the Lake Ahquabi projects is being furnished from the small nursery at Lake Ahquabi. All the trees used on the above plantings are being balled and burlapped to insure better results.

At Ledges State Park a program is under way to replace black locust plantings along the roads with wild roses, false indigo, plum and other shrubs.

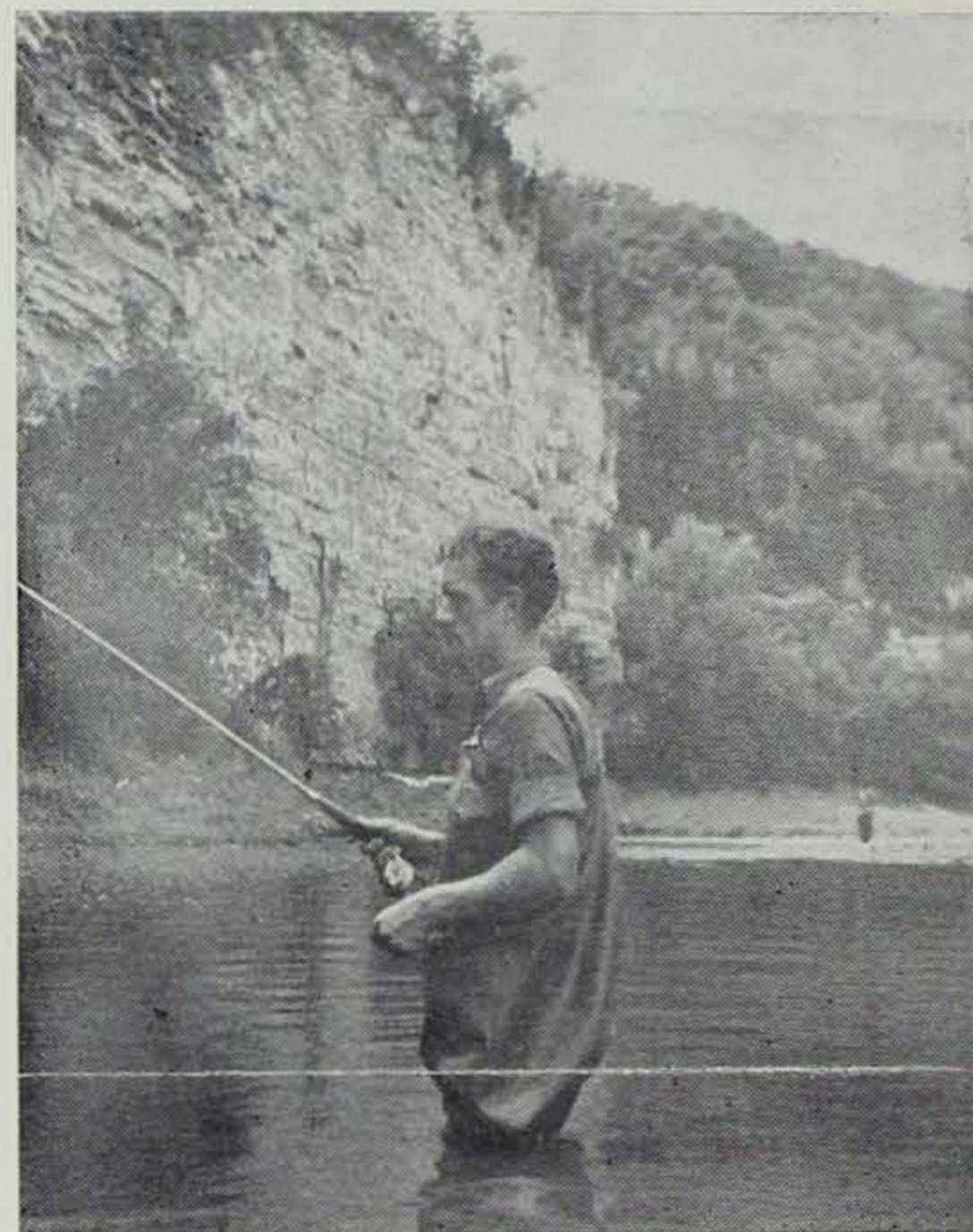
illegal pheasants in his possession. He was given a summons to report at the office of the justice of the peace at nine o'clock that same morning. The prosecuting officer went into the magistrate's court, filed the information, and waited for the defendant to appear, which he did in proper time. The justice levied a fine of \$100 and costs, and the case was closed.

A few days later the officer had another case in the same court. The justice said, "That fellow you had in here last week for shooting pheasants out of season was my nephew."

The officer replied, "If you had told me that, I would have saved you the embarrassment of trying him. I would have taken him into another court."

"Yes, I know you would," answered the J. P. "That's the reason I didn't say anything about it."

Trout Season Opens May 1st



Trout fishing in one of Northeast Iowa's Scenic Streams.

(Photo by Earl I. Rose)

The Iowa trout season opens at 5 A. M. May 1 and closes at 9 P. M., on September 30. Trout may be fished each day during the open season from one hour before sunrise to 9 P. M. war time. Daily catch limit is eight; possession limit, 16. Legal length for trout in Iowa is seven inches.

The Conservation Commission anticipates the best trout fishing in 1942 since the inauguration of

fish stocking programs more than 60 years ago. Investigation and stream surveys show a heavy carry-over of wild trout. This fact, plus more than 150,000 legal trout raised in state nurseries and released in the trout streams, seems to guarantee exceptional fishing. The following list of streams are open:

TROUT STOCKING IN 1941-42

County	Stream	Township	Sections In Which State Trout Stockings Were Made in 1941 & 42
ALLAMAKEE	Waterloo Creek	Waterloo	11-14-23-24-25
	French Creek	French Creek	1-2-11-14-23
	Clear Creek	Lansing	26-25-30
	Wexford Creek	LaFayette	25-26-30
	Hickory Creek	Franklin	33-28-22-23
	Village Creek	Center	18-19-20-21-16-15-14-13
	Little Paint	Taylor	18-19-30-32
	Livingood Springs	Post	2-3
CLAYTON	Bloody Run	Mendon & Giard	Entire Length
	Kleinlein Creek	Cass	3-10-2-25
	Buck Creek	Garnaville	16-21-22
DELAWARE	Joy Springs	Cass	32
	Maquoketa River	Richland	4-5-8-9-16-15
	& Spring Branch	Elk	14-21-22
DUBUQUE	Swiss Valley Creek	Table Mound	20-16-9
FAYETTE	Glovers Creek	Union	16-15
HOWARD	Bigalk Creek	Albion	24-13
	Cheahak Creek	Vernon Springs	36
JACKSON	Cheahak Creek	New Oregon	1
	Dalton Lake	Van Buren	30
	Big Mill Creek	Bellevue	6-7-8
	Little Mill Creek	Bellevue	29-28-21-22-23
JONES	Brush Creek	Perry	3-11
	Farm Creek	Washington	18-20
MITCHELL	Spring Creek	Lincoln	7-8
WINNESHIEK	Coldwater Creek	Burr Oak	30-31-32
	S. Bear Creek	Highland	29-28-33-34-35-36
	N. Bear Creek	Highland	25-23
	Bohemian Creek	Sumner	18-17-16
	Twin Springs	Decorah	20
	Trout Run	Decorah	27
	Trout River	Glenwood	33-28-21-16-9
	Canoe (West Branch)	Canoe	8-9-15-16